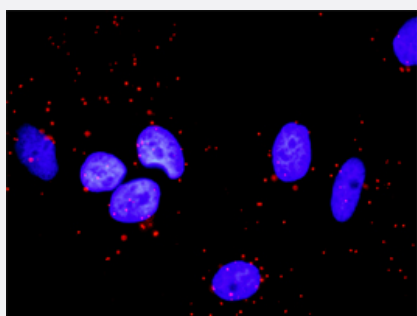


CDC42 & MAP3K4 Protein Protein Interaction Antibody Pair

Catalog # DI0616

Size 1 Set

Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between CDC42 and MAP3K4. HeLa cells were stained with anti-CDC42 rabbit purified polyclonal antibody 1:1200 and anti-MAP3K4 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.

Specification

Product Description

This protein protein interaction antibody pair set comes with two antibodies to detect the protein-protein interaction, one against the CDC42 protein, and the other against the MAP3K4 protein for use in [in situ Proximity Ligation Assay](#). [See Publication Reference below](#).

Reactivity

Human

Quality Control Testing

Protein protein interaction immunofluorescence result.
Representative image of Proximity Ligation Assay of protein-protein interactions between CDC42 and MAP3K4. HeLa cells were stained with anti-CDC42 rabbit purified polyclonal antibody 1:1200 and anti-MAP3K4 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.

Supplied Product

Antibody pair set content:
1. CDC42 rabbit purified polyclonal antibody (100 ug)
2. MAP3K4 mouse monoclonal antibody (40 ug)
*Reagents are sufficient for at least 30-50 assays using recommended protocols.

Storage Instruction

Store reagents of the antibody pair set at -20°C or lower. Please aliquot to avoid repeated freeze-thaw cycle. Reagents should be returned to -20°C storage immediately after use.

Applications

- *In situ* Proximity Ligation Assay (Cell)

Gene Info — CDC42

Entrez GeneID	998
Gene Name	CDC42
Gene Alias	CDC42Hs, G25K
Gene Description	cell division cycle 42 (GTP binding protein, 25kDa)
Omim ID	116952
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a small GTPase of the Rho-subfamily, which regulates signaling pathways that control diverse cellular functions including cell morphology, migration, endocytosis and cell cycle progression. This protein is highly similar to <i>Saccharomyces cerevisiae</i> Cdc 42, and is able to complement the yeast <i>cdc42-1</i> mutant. The product of oncogene Dbl was reported to specifically catalyze the dissociation of GDP from this protein. This protein could regulate actin polymerization through its direct binding to Neural Wiskott-Aldrich syndrome protein (N-WASP), which subsequently activates Arp2/3 complex. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq]
Other Designations	GTP-binding protein, 25kD OTTHUMP00000002834 OTTHUMP00000002926 cell division cycle 42 cell division cycle 42 (GTP binding protein, 25kD) cell division cycle 42 (GTP-binding protein, 25kD) dJ224A6.1.1 (cell division cycle 42 (GTP-binding protein, 25kD)) d

Gene Info — MAP3K4

Entrez GeneID	4216
Gene Name	MAP3K4
Gene Alias	FLJ42439, KIAA0213, MAPKKK4, MEKK4, MTK1, PRO0412
Gene Description	mitogen-activated protein kinase kinase kinase 4
Omim ID	602425
Gene Ontology	Hyperlink

Gene Summary

The central core of each mitogen-activated protein kinase (MAPK) pathway is a conserved cascade of 3 protein kinases: an activated MAPK kinase kinase (MAPKKK) phosphorylates and activates a specific MAPK kinase (MAPKK), which then activates a specific MAPK. While the ERK MAPKs are activated by mitogenic stimulation, the CSBP2 and JNK MAPKs are activated by environmental stresses such as osmotic shock, UV irradiation, wound stress, and inflammatory factors. This gene encodes a MAPKKK, the MEKK4 protein, also called MTK1. This protein contains a protein kinase catalytic domain at the C terminus. The N-terminal nonkinase domain may contain a regulatory domain. Expression of MEKK4 in mammalian cells activated the CSBP2 and JNK MAPK pathways, but not the ERK pathway. In vitro kinase studies indicated that recombinant MEKK4 can specifically phosphorylate and activate PRKMK6 and SERK1, MAPKKs that activate CSBP2 and JNK, respectively but cannot phosphorylate PRKMK1, an MAPKK that activates ERKs. MEKK4 is a major mediator of environmental stresses that activate the CSBP2 MAPK pathway, and a minor mediator of the JNK pathway. Two alternatively spliced transcripts encoding distinct isoforms have been described. [provided by RefSeq]

Other Designations

MAP/ERK kinase kinase 4|MAPK/ERK kinase kinase 4|SSK2/SSK22 MAP kinase kinase kinase, yeast, homolog of|dJ473J16.1 (mitogen-activated protein kinase kinase kinase 4)|predicted protein of HQ0412

Pathway

- [Adherens junction](#)
- [Axon guidance](#)
- [Chemokine signaling pathway](#)
- [Endocytosis](#)
- [Epithelial cell signaling in Helicobacter pylori infection](#)
- [Fc gamma R-mediated phagocytosis](#)
- [Focal adhesion](#)
- [GnRH signaling pathway](#)
- [GnRH signaling pathway](#)
- [Leukocyte transendothelial migration](#)
- [MAPK signaling pathway](#)
- [MAPK signaling pathway](#)
- [Neurotrophin signaling pathway](#)
- [Pancreatic cancer](#)
- [Pathogenic Escherichia coli infection - EHEC](#)

- [Pathways in cancer](#)
- [Regulation of actin cytoskeleton](#)
- [Renal cell carcinoma](#)
- [T cell receptor signaling pathway](#)
- [Tight junction](#)
- [VEGF signaling pathway](#)

Disease

- [Genetic Predisposition to Disease](#)
- [Hepatitis B](#)
- [HIV Infections](#)
- [Multiple Sclerosis](#)
- [Parkinson disease](#)
- [Tobacco Use Disorder](#)